
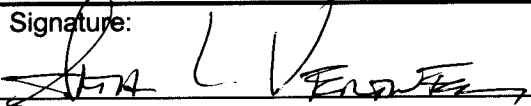


ESCO - 1 (7/22/2002)	ENERGY SERVICES COMPANY - (ESCO) SYNOPSIS OF OFFICE RESPONSIBLE FOR CONTRACT	Page 1 of 1
Submitted by ABACUS ENGINEERED SYSTEMS 		
Submitted for: SERVICES FOR ENERGY PERFORMANCE CONTRACTING, RFP NO. SRM-2002-104		

<p>1) FIRM NAME AND ADDRESS Abacus Engineered Systems, Inc. 4431 North Front Street, Suite 100 Harrisburg, PA 17110 T: 717.232.8182 F: 717.232.8187 FEIN/SSN: 91-1280978</p>	<p>2) YEARS IN BUSINESS a. Under present name Abacus has been in business for 17 years; Harrisburg office has been open for 3 years. b. List other names and years Not applicable</p>
<p>3) NAMES OF PARENT COMPANIES Abacus Engineered Systems, Inc. 401 Second Avenue South, Suite 201 Seattle, WA 98104 T: 206.583.0200 F: 206.583.8826</p>	<p>4) SPECIFY TYPE OF OWNERSHIP Corporation Virginia Certificate of Authority ID: F151841-6 DCN:01-07-24-0139 Dated: July 24, 2002</p>
<p>5) NAMES OF NOT MORE THAN TWO PRINCIPALS TO CONTACT David Ames Director of Business Development <u>dra@abacus-engr.com</u> 518.583.6631</p>	<p>Mark Webb Director of Business Development, Northeast <u>maw@abacus-engr.com</u> 717.232.8182</p>

6) PROPOSED CONSULTANTS OR OTHER OFFICES PROVIDING SERVICES		
FIRM NAME	FUNCTION/RESPONSIBILITY	WORKED WITH PRIME BEFORE?
Abacus Engineered Systems: Saratoga Springs office	Energy engineering Energy auditing	Yes
Abacus Engineered Systems: Seattle office	Schematic design support Performance assurance	Yes
(Attach Firm Data Form ESCO-2 for each consultant or other office)		

7) NUMBER OF PERSONNEL IN FIRM AT (1) ABOVE BY RESPONSIBILITY (List each person only once)				
	Licensed	Unlicensed	Company Total	Assigned to Project
Project Managers		4	4	2
Energy Specialists	1	2	3	3
Construction Managers		1	1	1
Estimators		1		1
Schedulers		1		1
Safety Officers				
Procurement				
Accountants				
Clerical Staff		2	2	2
Inspectors				
Haz Mat Specialists				
Engineers	1	1	2	2
Architects				
CADD Operators				
Specifications				
TOTALS	2	10	12	12

THE FOREGOING IS A STATEMENT OF FACT.	Signature: 
Typed Name and Title:	Date:
Arthur L. Vertner, AIA, Chairman & Co-Founder	December 16, 2002

ESCO – 4 (7/22/2002)	ENERGY SERVICES COMPANY – (ESCO) PERSONNEL QUALIFICATIONS	Page 1 of 22
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Personnel time allocated to the project will be based on schedule, scope and phases of the project. Primary support for the Virginia projects will come from the Harrisburg regional and Saratoga Springs branch offices. These offices will tap appropriate resources from other branch offices and the parent company to successfully meet project needs. Abacus guarantees local and national support services necessary to fulfill energy cost savings contracts for the Commonwealth of Virginia.

BRIEF RESUME OF KEY INDIVIDUAL PROPOSED FOR THIS PROJECT. PROVIDE ONE FORM FOR EACH PERSON.

1) NAME AND TITLE

David R. Ames, Jr., CEM
Director of Business Development

TYPICAL DUTY OR ASSIGNMENT

Project development from inception through implementation and commissioning

2) ASSIGNMENT FOR THIS PROJECT

Direct project development

PERCENT OF TYPICAL 40 HOUR WORK WEEK THIS PERSON WOULD SPEND ON PROJECT: 20-50%

3) EMPLOYEE OF

Abacus Engineered Systems, Inc.

4) YEARS OF EXPERIENCE

17 TOTAL YEARS OF EXPERIENCE 3 WITH THIS FIRM

5) EDUCATION: COLLEGE / DEGREE(S) / YEAR / SPECIALIZATION:

University of Richmond / Masters / 1993 / Business Administration (M.B.A.)
Virginia Military Institute / Bachelor of Science / 1985 / Electrical Engineering

6) ACTIVE REGISTRATION IF APPLICABLE: Year first registered / State / Discipline or Type

1991 / All States / Certified Energy Manager
2002 / All States / LEED Accredited Professional

COMMONWEALTH OF VIRGINIA REGISTRATION / LICENSE NUMBER:

Not applicable.

7) EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT

Mr. Ames directs Abacus business development in New York and Virginia, from project development through implementation and commissioning. He brings 17 years of experience in technical analysis and applications engineering and auditing to Abacus.

Mr. Ames joined Abacus after acting as manager of business operations and sales as the Vice President for Virginia Energy Services (VES) in Richmond, Virginia. Mr. Ames achieved a sales closing rate of 77% and VES is now one of the largest geothermal loop installation companies on the East Coast. He also won a national marketing award for selling Thermal Energy Storage to a mall to cool their facility. The mall realized 30% to 40% savings on their air-conditioning bills.

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7) **EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT**

Phelps Memorial Hospital Center Sleepy Hollow, New York

Project Developer Upgrade of the hospital's main energy plant through a \$4.6 million energy performance contract.

State University of New York (SUNY) Delhi Delhi, New York

Project Developer The \$4 million energy conservation project includes approximately 1,000,000 square feet spread out over 40 buildings and an upgrade to the heating plant.

Helen Hayes Hospital West Haverstraw, New York

Project Developer Awarded project which may include \$6 million infrastructure modernization complete with 1.2 megawatt gas turbine absorption chiller cogeneration system. Project is in development phase.

Various Geothermal Projects

Boars Head Inn, PI - Charlottesville, VA	52 Tons
Boars Head Inn, PII - Charlottesville, VA	76 Tons
Brandt Engineering Building - Midlothian, VA	15 Tons
Wilmington Housing Auth., PI - Wilmington, NC	224 Tons/Design-Build
Wilmington Housing Auth., PII - Wilmington, NC	392 Tons/Design-Build
Y.E. Smith School - Durham, NC	180 Tons
Lynchburg Housing Authority - Lynchburg, VA	130 Tons
Fort Eustis Bldg. 2715, PI - Ft. Eustis, VA	300 Tons
Fort Eustis Bldg. 2716, PI - Ft. Eustis, VA	250 Tons
James River Bus Lines - Richmond, VA	28 Tons/Design-Build
Cape Hatteras Lighthouse - Buxton, NC	25 Tons
Pryor Estate - Goochland, VA	60 Tons
Tabb Middle School - Yorktown, VA	255 Tons
Innsbrook Office Building - Glen Allen, VA	72 Tons
Historic Yorktown Courthouse - Yorktown, VA	72 Tons
Delmar High School - Delmar, MD	300 Tons
Independence School - Wilmington, DE	82 Tons/Design-Build
Longwood College Dining Hall - Longwood, VA	200 Tons
Oceana NAS BEQ - Virginia Beach, VA	252 Tons
Anacostia NAS BOQ - Washington, DC	40 Tons
Holly Hall Elementary School - Elkton, MD	180 Tons
Longwood College Dining Hall - Farmville, VA	250 Tons
Southside VA Comm. College - Keysville, VA	70 Tons
Southside VA Comm. College - Alberta, VA	70 Tons
Rappahanock High School - Rappahanock Co., VA	61 Tons
Asheboro Post Office - Asheboro, NC	90 Tons

Additionally, Mr. Ames worked in various capacities at Virginia Power (ultimately serving as senior engineer responsible for commercial heating and cooling programs) and as a design engineer at Hayes Seat Mattern and Mattern (a multidiscipline architecture and engineering firm).

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Arthur L. Vertner, AIA, Chairman & Co-Founder	December 16, 2002

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BRIEF RESUME OF KEY INDIVIDUAL PROPOSED FOR THIS PROJECT. PROVIDE ONE FORM FOR EACH PERSON.

1) **NAME AND TITLE**

Mark Webb, PE, CEM, CPE

Director of Business Development, Northeast

TYPICAL DUTY OR ASSIGNMENT

Project development of guaranteed energy service projects

2) **ASSIGNMENT FOR THIS PROJECT**

Assist with project development

PERCENT OF TYPICAL 40 HOUR WORK WEEK THIS PERSON WOULD SPEND ON PROJECT: 10-20%

3) **EMPLOYEE OF**

Abacus Engineered Systems, Inc.

4) **YEARS OF EXPERIENCE**

15 TOTAL YEARS OF EXPERIENCE 5 WITH THIS FIRM

5) **EDUCATION: COLLEGE / DEGREE(S) / YEAR / SPECIALIZATION:**

Old Dominion University / Bachelors of Science / 1987 / Mechanical Engineering
North Carolina State University / Energy Management Diploma / 1994

6) **ACTIVE REGISTRATION IF APPLICABLE: Year first registered / State / Discipline or Type**

1996 / Virginia / Professional Engineer (Mechanical)
2002 / All States / LEED Accredited Professional

COMMONWEALTH OF VIRGINIA REGISTRATION / LICENSE NUMBER:

Engineer # 026669

7) **EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT**

Mr. Webb has 15 years of experience in energy services, public utility, and energy-related engineering fields. His experience prior to Abacus includes providing electric cooperatives, investor-owned utilities, municipalities and energy service companies with fully-integrated energy programs and services for industrial, commercial and governmental customers. In a 20-month period he performed more than 71 industrial and commercial fuel-neutral energy audits totaling \$6.1 million/year in savings. He is responsible for developing guaranteed energy service projects at three facilities in Pennsylvania: Hiram G. Andrews Center, Thaddeus Stevens College of Technology, and Fort Indiantown Gap.

Hiram G. Andrews Center Johnstown, Pennsylvania

Project Developer The project centers around the replacement of the three existing steam boilers with two dual fuel steam boilers. The project includes the replacement of the in-floor radiant heating system with a four-pipe fan coil unit system complete with direct-digital controls; a lighting retrofit; and water conservation measures.

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7) *EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT*

Thaddeus Stevens College of Technology Lancaster, Pennsylvania

Project Developer The \$2.5 million project centers around the renovation of the central steam plant including fully-automated controls, blow-down heat recovery, and a new packaged deaerator tank with new feedwater pumps.

Fort Indiantown Gap Annville, Pennsylvania

Project Developer The \$6 million project includes a base-wide upgrade of the existing energy management control system; a complete renovation of the central plant in the Main Administration Building; a lighting retrofit; and water conservation measures.

South Puget Sound Community College Olympia, Washington

Project Developer/Project Manager for the \$1 million renovation of the HVAC system in the 76,470 square foot College Center Building

Edmonds Community College Edmonds, Washington

Project Developer/Applications Engineer Projects included energy management system, lighting fixture replacement, lighting controls, VAV conversion, point-of-use water heaters, and central plant optimization.

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BRIEF RESUME OF KEY INDIVIDUAL PROPOSED FOR THIS PROJECT. PROVIDE ONE FORM FOR EACH PERSON.

1) *NAME AND TITLE*

Matthew D. Twomey
Project Manager

TYPICAL DUTY OR ASSIGNMENT

Project management of energy saving projects

2) *ASSIGNMENT FOR THIS PROJECT*

Manage projects after initial development through completion of commissioning and warranty.

PERCENT OF TYPICAL 40 HOUR WORK WEEK THIS PERSON WOULD SPEND ON PROJECT: 40-60%

3) *EMPLOYEE OF*

Abacus Engineered Systems, Inc.

4) *YEARS OF EXPERIENCE*

21 TOTAL YEARS OF EXPERIENCE 1 WITH THIS FIRM

5) *EDUCATION: COLLEGE / DEGREE(S) / YEAR / SPECIALIZATION:*

The Catholic University of America / Bachelors of Science / 1981 / Mechanical Engineering

6) *ACTIVE REGISTRATION IF APPLICABLE: Year first registered / State / Discipline or Type*

Not applicable

COMMONWEALTH OF VIRGINIA REGISTRATION / LICENSE NUMBER:

Not applicable

7) *EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT*

Mr. Twomey has more than 20 years of experience in the construction of healthcare, educational, institutional, commercial/retail, and residential facilities. His experience ranges from small renovations to major new construction and from office buildings to technologically complex research and healthcare facilities. In addition to pre-construction and construction activities, Matt has performed building start-up activities such as commissioning. He recently served as senior vice president of one of the largest construction companies in the nation, responsible for contract negotiations, client relations, business development and organizational structure of the firm. Major construction experience is described below.

He is responsible for managing energy saving projects in our Pennsylvania office to a successful conclusion. Evidence of his strong project management and communication skills is demonstrated in his ability to maintain client communications while monitoring project schedules, budgets, and staffing.

Milton Hershey School Hershey, PA

MEP Pre-construction/Construction Manager Oversaw the mechanical and electrical design and installation of \$80M of educational and institutional construction for a private K-12 school that houses 1,100 students.

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7) *EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT*

Children's National Medical Center Washington, DC

Owner's Project Manager Responsible for general contractor, numerous subcontractors, and in-house construction forces for all projects, including Fifth Floor Research Facility Addition (\$10M), East Addition (\$20M), Animal Research Addition (\$0.5M), along with various clinical projects. Responsibilities included oversight of all construction-related activities, including cost control, scheduling, coordination, safety programs, and in-house coordination of hospital staff.

Two Bell Atlantic Plaza Washington, DC

Project Manager Responsibilities for this corporate headquarters building included administration of contracts for all MEP contractors.

Bank of Baltimore Baltimore, MD

Project Manager Responsible for administration - including scheduling, cost control, change order management, and project turnover - for 26-story office tower construction.

2000 Pennsylvania Avenue NW Washington, DC

Project Manager Responsible for administration and building start-up of major downtown office building renovation and addition.

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BRIEF RESUME OF KEY INDIVIDUAL PROPOSED FOR THIS PROJECT. PROVIDE ONE FORM FOR EACH PERSON.

1) *NAME AND TITLE*

Richard A. Evans
Project Manager

TYPICAL DUTY OR ASSIGNMENT

Project management, energy technical analysis, construction management, training

2) *ASSIGNMENT FOR THIS PROJECT*

Project manager, coordinating all activities after preliminary staff through completion of commissioning and performance assurance.

PERCENT OF TYPICAL 40 HOUR WORK WEEK THIS PERSON WOULD SPEND ON PROJECT: 10-30%

3) *EMPLOYEE OF*

Abacus Engineered Systems, Inc.

4) *YEARS OF EXPERIENCE*

21 TOTAL YEARS OF EXPERIENCE 1 WITH THIS FIRM

5) *EDUCATION: COLLEGE / DEGREE(S) / YEAR / SPECIALIZATION:*

Lehigh University / Bachelor of Science / 1980 / Mechanical Engineering

6) *ACTIVE REGISTRATION IF APPLICABLE: Year first registered / State / Discipline or Type*

Not applicable

COMMONWEALTH OF VIRGINIA REGISTRATION / LICENSE NUMBER:

Not applicable

7) *EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT*

Hiram G. Andrews Center Johnstown, Pennsylvania
Project Manager for an \$8 million energy savings project at a post-secondary education facilities

Fort Indiantown Gap Annville, Pennsylvania
Project Manager for an \$10.4 million energy savings project at Pennsylvania National Guard base

Thaddeus Stevens School of Technology Lancaster, Pennsylvania
Project Manager for an \$2.6 million energy savings project at this technical college facility

Barclay White Skanska Mechanicsburg, Pennsylvania (2000–2001)
Mechanical/Electrical Estimator : Responsibilities include estimating costs for mechanical and electrical systems at the conceptual, schematic, design development and construction document levels as well as value engineering and engineering document review

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7) **EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT**

Reynolds Construction Management Harrisburg, Pennsylvania (1992–2000)

Manager of Technical Services

- ⤴ Directed the mechanical/electrical estimating departments, developed company estimating standards, was responsible for MIS management and supported the marketing department on technical proposals.
- ⤴ Responsibilities included estimating costs for mechanical and electrical systems at the conceptual, schematic, design development and construction document levels as well as value engineering and plan review.

James J. Madden Inc. Washington, D.C. (1987–1992)

Lead Estimator

- ⤴ Responsible for all competitive bid estimating, project management, purchasing and contract negotiation for a mid-sized mechanical contracting firm; work included hospitals, restaurants, office buildings and tenant fit-out projects.
- ⤴ Worked as an on-site project manager for about one year.

George Hyman Construction Bethesda, Maryland (1983–1987)

Mechanical Estimator: Responsibilities include estimating costs for mechanical systems for GMP type contracts and solicitation/scoping for competitive bid work

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BRIEF RESUME OF KEY INDIVIDUAL PROPOSED FOR THIS PROJECT. PROVIDE ONE FORM FOR EACH PERSON.

1) *NAME AND TITLE*

Gregory J. Koussis
Project Manager

TYPICAL DUTY OR ASSIGNMENT

Project management of energy saving projects

2) *ASSIGNMENT FOR THIS PROJECT*

Manage projects after initial development through completion of commissioning and warranty.

PERCENT OF TYPICAL 40 HOUR WORK WEEK THIS PERSON WOULD SPEND ON PROJECT: 5-30%

3) *EMPLOYEE OF*

Abacus Engineered Systems, Inc.

4) *YEARS OF EXPERIENCE*

15 TOTAL YEARS OF EXPERIENCE 1 WITH THIS FIRM

5) *EDUCATION: COLLEGE / DEGREE(S) / YEAR / SPECIALIZATION:*

University of Delaware / Bachelor of Science / 1987 / Business Administration (Financial Management and Economics)

6) *ACTIVE REGISTRATION IF APPLICABLE: Year first registered / State / Discipline or Type*

Not applicable

COMMONWEALTH OF VIRGINIA REGISTRATION / LICENSE NUMBER:

Not applicable

7) *EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT*

Pennsylvania State Museum & Archives Harrisburg, Pennsylvania
Senior Project Manager for \$10 million renovation project (HVAC, lighting, electrical, water conservation) for a state government facility

Jewish Home of Harrisburg Harrisburg, Pennsylvania
Preconstruction Manager/Project Manager for an \$11 million new assisted living facility/nursing home renovation (HVAC, lighting, electrical, water conservation) project

Upper Adams School District Biglerville, Pennsylvania
Preconstruction Manager/Project Manager for HVAC, electrical, water conservation renovation project (\$15 million) middle school/new high school

Hershey Medical Center Herhey, Pennsylvania
Preconstruction Manager/Project Manager for HVAC, lighting, electrical, water conservation renovation project (\$2 million)

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7) *EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT*

Unionville/Chadds Ford School District Unionville, PA

Agency Construction Manager for:

- ▲ New \$14 million Pocopson Elementary School
- ▲ \$10 million in renovations and additions to Unionville Elementary School

Southern York County School District Glen Rock, PA

Agency Construction Manager for:

- ▲ \$7 million in renovations and additions to middle school
- ▲ \$5 million in renovations and additions to elementary school

Catoctin High School Catoctin, MD

Agency Construction Manager for \$11 million in renovations and additions

Milton Hershey School Hershey, PA

Agency Construction Manager for \$230 million Town Center project. New construction portions of the project included: Performance Gymnasium, Learning Resource Center (Library), high school, and middle school. Renovation and addition portions of the project include Catherine Hall, Memorial Hall, Senior Hall, and Ice Rink.

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BRIEF RESUME OF KEY INDIVIDUAL PROPOSED FOR THIS PROJECT. PROVIDE ONE FORM FOR EACH PERSON.

1) NAME AND TITLE

William Marzano, PE, CEM
Project Development Engineer

TYPICAL DUTY OR ASSIGNMENT

Energy project formulation and development

2) ASSIGNMENT FOR THIS PROJECT

Energy auditing, energy engineering

PERCENT OF TYPICAL 40 HOUR WORK WEEK THIS PERSON WOULD SPEND ON PROJECT: 15-40%

3) EMPLOYEE OF

Abacus Engineered Systems, Inc.

4) YEARS OF EXPERIENCE

19 TOTAL YEARS OF EXPERIENCE 1 WITH THIS FIRM

5) EDUCATION: COLLEGE / DEGREE(S) / YEAR / SPECIALIZATION:

Rensselaer Polytechnic Institute / Masters of Science / 1992 / Mechanical Engineering
Rochester Institute of Technology / Bachelors of Science / 1983 / Mechanical Engineering

6) ACTIVE REGISTRATION IF APPLICABLE: Year first registered / State / Discipline or Type

1993 / New York / Professional Engineer (Mechanical)
1996 / All States / Certified Energy Manager

COMMONWEALTH OF VIRGINIA REGISTRATION / LICENSE NUMBER:

Not applicable

7) EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT

Mr. Marzano has 19 years of experience in mechanical engineering, including nine years in commercial and industrial energy auditing and performance contracting. His strengths include commercial and industrial energy project formulation and development, specification of state-of-the art energy recommendations, building systems retrofit strategies, project management, commissioning and performance measurement. Bill also holds environmental credentials from several federal authorities, including OSHA and EPA, which qualify him as a hazardous materials worker, supervisor and contractor.

A recent addition to the Abacus team, Bill's responsibilities include energy/economic analysis, monitoring and verification, technical feasibility studies, conceptual engineering, and project development.

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7) **EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT**

Engineering Manager of Energy Services Company Branch Office New York (October 1996–May 2002)

- ⤴ Developed comprehensive performance contract projects totaling \$27 million.
- ⤴ Duties bridged sales to construction and included energy auditing, contract negotiations, project financing and coordination of sub-contracted engineering design professionals.
- ⤴ Specified the installation of fourteen cogeneration plants totaling 3.8 megawatts.
- ⤴ Developed engineering analysis tools for estimating construction costs and energy cost savings and acted as center for technical competency.

Demand Side Management Consulting Maryland (July 1993-October 1996)

- ⤴ Conducted more than 900 on-site energy audits for commercial, industrial, and institutional customer accounts for Central Hudson Gas and Electric Corporation. This included modeling of heating and cooling loads and recommendation of energy measures.
- ⤴ Conducted twelve on-site surveys of cogeneration facilities in New York City, toward fulfillment of a contracted study for Con Edison.
- ⤴ Performed six commercial energy surveys in Honolulu Hawaii, toward fulfillment of contracted work for Hawaiian Electric Company.

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BRIEF RESUME OF KEY INDIVIDUAL PROPOSED FOR THIS PROJECT. PROVIDE ONE FORM FOR EACH PERSON.

1) NAME AND TITLE

James B. Slavetskaskas, PE, CEM
Vice President of Business Development, Northeast

TYPICAL DUTY OR ASSIGNMENT

Project development of guaranteed energy service projects

2) ASSIGNMENT FOR THIS PROJECT

Manage and direct Abacus assets to appropriately staff and support projects.

PERCENT OF TYPICAL 40 HOUR WORK WEEK THIS PERSON WOULD SPEND ON PROJECT: 10-20%

3) EMPLOYEE OF

Abacus Engineered Systems, Inc.

4) YEARS OF EXPERIENCE

32 TOTAL YEARS OF EXPERIENCE 4 WITH THIS FIRM

5) EDUCATION: COLLEGE / DEGREE(S) / YEAR / SPECIALIZATION:

University of Miami / Bachelors of Science / 1970 / Electrical Engineering
Broome Community College / Associate of Arts and Sciences / 1968 / Electrical Technology

6) ACTIVE REGISTRATION IF APPLICABLE: Year first registered / State / Discipline or Type

1980 / New York / Professional Engineer (Electrical)
1985 / Florida / Professional Engineer (Electrical)
1987 / Pennsylvania / Professional Engineer (Electrical)
1994 / All States / Certified Energy Manager

COMMONWEALTH OF VIRGINIA REGISTRATION / LICENSE NUMBER:

Not applicable

7) EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT

Mr. Slavetskaskas manages Abacus assets on the East Coast to appropriately staff projects from project development through implementation and commissioning. He has managed numerous engineering design and construction projects involving all areas of energy management design. Jim is a well-known and well-respected member of the energy services and construction industry.

Abacus Engineered Systems, Inc. Boston, MA

May 1999 – Present

Vice President of Business Operations Northeast Region Directs Abacus' business operations for the East Coast. Responsibilities included the development and management of a full service operations group for Abacus in the Boston area. Basic responsibilities included profit and loss, acquisition and merger evaluation, strategic and tactical planning, client presentations, budgeting, staff planning, contract administration, project development, energy engineering and analysis, engineering design, commissioning, construction management services, measurement and verification plans, guaranteed quarterly and yearly savings reports.

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Typed Name and Title: Arthur L. Vertner, AIA, Chairman & Co-Founder	Date: December 16, 2002

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7) *EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT*

CONECO Corporation, Boston, MA

February 1998 – March 1999

Senior Vice President of Business Operations, responsibilities included the development of a full service operations group for CONECO.

XENERGY Inc., Binghamton, New York 1991 - 1998

Director, Business Development. Region included New York, Ohio, Michigan, Indiana,. Wisconsin, Northern New Jersey, and some specific accounts in Pennsylvania.

Director, Responsible for operation of Ramsey, NJ; Binghamton, NY; Fort Wayne, IN; and Akron and Columbus, OH offices.

James Engineering, Dryden, New York 1994 – 1991

Principal/Owner. Founded and developed the company of 7-13 personnel in providing detailed engineering designs, specifications, contract documents and professional approval for all electrical, mechanical and energy management design.

**New York State Electric & Gas Corporation,
Binghamton, New York 1986 – 1990**

Manager Residential Market Services. Planned, developed, scheduled, assigned and directed the Residential Market Services Group.

Supervisor Energy Management. Planned, developed, scheduled, assigned and directed the Commercial/Industrial Marketing Program.

Sr. Energy Engineer. Assisted customers in the efficient use of electric and natural gas energy and in the efficient design of heating, ventilating, air conditioning and illumination layouts.

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BRIEF RESUME OF KEY INDIVIDUAL PROPOSED FOR THIS PROJECT. PROVIDE ONE FORM FOR EACH PERSON.

1) *NAME AND TITLE*

Allen Halstead
Construction Manager

TYPICAL DUTY OR ASSIGNMENT

Manages energy service project construction

2) *ASSIGNMENT FOR THIS PROJECT*

Construction management

PERCENT OF TYPICAL 40 HOUR WORK WEEK THIS PERSON WOULD SPEND ON PROJECT: 20-100%

3) *EMPLOYEE OF*

Abacus Engineered Systems, Inc.

4) *YEARS OF EXPERIENCE*

19 TOTAL YEARS OF EXPERIENCE 2 WITH THIS FIRM

5) *EDUCATION: COLLEGE / DEGREE(S) / YEAR / SPECIALIZATION:*

Not applicable

6) *ACTIVE REGISTRATION IF APPLICABLE: Year first registered / State / Discipline or Type*

Not applicable

COMMONWEALTH OF VIRGINIA REGISTRATION / LICENSE NUMBER:

Not applicable

7) *EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT*

Mr. Halstead is responsible for Implementing construction scope, schedule, budget, and expectations (SSBE) and providing input to the project manager any time SSBE appears to change. He handles all procurement of equipment, as well as managing and controlling communications with vendors and subcontractors, starting with the bidding phase. He has extensive experience in managing and controlling Change Order Requests (CORs), Requests for Information (RFIs DCVRs), Field Authorizations (FAs), and other construction-related documentation.

Phelps Memorial Hospital Center Sleepy Hollow, New York
Construction Manager for a \$5 million energy and utility conservation performance contract. The project consists of an upgrade the hospital's main energy plant.

Rondout Valley Central School District Construction Management Services Accord, New York
Construction Manager for phased construction at five different facilities (\$12M construction value).

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7) **EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT**

Westage Medical Office Building Poughkeepsie, New York
Construction Manager for the 60,000 square foot, three-story building which also included the following tenant improvement projects:

- ▲ Hudson Valley Heart Center – 20,000 square feet
- ▲ Dutchess Radiology Associates – 20,000 square feet
- ▲ Hudson Valley Urology – 7,500 square feet
- ▲ Dutchess Surgical Associates – 2,700 square feet
- ▲ Taconic Cardiothoracic – 2,700 square feet
- ▲ Dr. Bollenger – 2,000 square feet
- ▲ Hudson Valley Heart Center Classroom – 3,000 square feet

Fulton County Ambulatory Surgery Center Johnstown, New York
A 10,000 square foot surgery center complete with 3 operating rooms. Coordination with Army Corps of Engineers and the New York State Department of Health. Amenities included a full scale medical gas/medical air/medical vacuum system and an emergency power system.

New Windsor Medical Office Building New Windsor, New York
A 12,000 square foot medical office building. Involved coordination between the owner, site engineer and Town Planning Board for difficult site work.

Parson's Meadow Medical Park Atlanta, Georgia
Three, 30,000 square foot medical office buildings each with a full scale Ambulatory Surgery Center.

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BRIEF RESUME OF KEY INDIVIDUAL PROPOSED FOR THIS PROJECT. PROVIDE ONE FORM FOR EACH PERSON.

1) NAME AND TITLE

Greg Koontz, P.E.
Chief Engineer

TYPICAL DUTY OR ASSIGNMENT

Directs project development engineering

2) ASSIGNMENT FOR THIS PROJECT

Manage Abacus' comprehensive audit development assets.

PERCENT OF TYPICAL 40 HOUR WORK WEEK THIS PERSON WOULD SPEND ON PROJECT: 5-20%

3) EMPLOYEE OF

Abacus Engineered Systems, Inc.

4) YEARS OF EXPERIENCE

17 TOTAL YEARS OF EXPERIENCE 9 WITH THIS FIRM

5) EDUCATION: COLLEGE / DEGREE(S) / YEAR / SPECIALIZATION:

Kansas State University / Bachelor of Science / 1985 / Architectural Engineering

6) ACTIVE REGISTRATION IF APPLICABLE: Year first registered / State / Discipline or Type

1990 / Washington / Professional Engineer (Mechanical)

1998 / Nevada / Professional Engineer (Mechanical)

2000 / Alaska / Professional Engineer (Mechanical)

2000 / Hawaii / Professional Engineer (Mechanical)

COMMONWEALTH OF VIRGINIA REGISTRATION / LICENSE NUMBER:

Not applicable

7) EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT

Mr. Koontz has 17 years' experience in a wide range of building types and design services. His responsibilities range from conceptual development to feasibility and life cycle cost studies, continuing through to construction documents, construction management and the commissioning of the finished facility.

State of Oregon Employment Building Salem, OR

Technical Oversight A complete interior, HVAC and lighting system energy audit and renovation throughout five levels of office space. The interior renovation and energy savings project is dramatically improving tenant comfort and indoor air quality, and reducing annual energy consumption more than 1.5 million kWh.

State of Washington Capitol Campus Olympia, WA

Mechanical Engineer In the largest Washington State-owned energy project, performance contracts totaling more than \$8 million included new HVAC systems with DDC and new lighting systems. Annual kWh produced over \$600,000 in annual savings and \$600,000 of annual payments from Puget Power.

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7) *EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT*

Central Washington University Ellensburg, WA

Lead Mechanical Engineer Campus-wide energy efficiency services include energy audits to identify energy conservation measures. Responsible for campus utility upgrades and master planning, systems include chilled water and steam distribution. While the building area has increased 10% over the past four years, energy use has dropped 25% due to the \$19 million investment in ESCO projects.

Providence St. Peter Hospital Olympia, WA

Lead Mechanical Engineer Abacus has completed design and construction services for the modernization of this major medical center's central plant. The hospital spends about \$812,000 a year on electricity and \$382,000 a year on natural gas. The \$2.22 million modernization project has enabled the hospital to use 10 percent less electricity and 30 percent less gas.

Four Seasons Olympic Hotel Seattle, WA

Lead Mechanical Engineer Abacus replaced the chilled water plant, upgrade the lighting systems, and improve the end-use energy management system at this luxury hotel. As a result of the mechanical and electrical modifications, the hotel has increased total cooling capacity while realizing 1,800,000 kWh (13%) savings per year.

Hiram G. Andrews Center Johnstown, PA

Lead Mechanical Engineer The center covers 12 acres - over 550,000 square feet under one roof. Abacus is providing performance contracting services which will provide energy and utility savings of \$1.24 million per year.

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BRIEF RESUME OF KEY INDIVIDUAL PROPOSED FOR THIS PROJECT. PROVIDE ONE FORM FOR EACH PERSON.

1) *NAME AND TITLE*

Jeffrey M. Coles, PE
Performance Management Services Supervisor

TYPICAL DUTY OR ASSIGNMENT

Commissioning, measurement and verification, testing and balancing

2) *ASSIGNMENT FOR THIS PROJECT*

Direct and oversee all performance management and assurance activities. Ultimately responsible for project after construction through guarantee period.

PERCENT OF TYPICAL 40 HOUR WORK WEEK THIS PERSON WOULD SPEND ON PROJECT: 10-25%

3) *EMPLOYEE OF*

Abacus Engineered Systems, Inc.

4) *YEARS OF EXPERIENCE*

10 TOTAL YEARS OF EXPERIENCE 6 WITH THIS FIRM

5) *EDUCATION: COLLEGE / DEGREE(S) / YEAR / SPECIALIZATION:*

University of Washington / Bachelors of Science / 1992 / Mechanical Engineering

6) *ACTIVE REGISTRATION IF APPLICABLE: Year first registered / State / Discipline or Type*

1996 / Washington / Professional Engineer (Mechanical Engineer)

COMMONWEALTH OF VIRGINIA REGISTRATION / LICENSE NUMBER:

Not applicable

7) *EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT*

Mr. Coles has more than ten years of experience in the design, construction, startup, and commissioning of mechanical and electrical systems in a variety of facilities. His experiences involved him in every facet of the process required to design, construct, startup, and commission health care, commercial, and heavy commercial facilities. He also has extensive hands-on field experience in testing, adjusting, balancing, and commissioning. A large part of Mr. Coles' experience involves the identification, design, construction, implementation, and monitoring of energy savings measures in institutional facilities and critical, 24-hour facilities.

Providence St. Peter Hospital Olympia, WA

For this \$45 million central plant modernization and hospital expansion project, Jeff's responsibilities included:

- ▲ Commissioning of mechanical and electrical systems during the central plant modernization (1,200-ton chilled water, 50,000 Mbtu steam plant)
- ▲ Balancing of mechanical systems for bronchoscopy remodel
- ▲ Commissioning of mechanical systems in the catherization laboratory
- ▲ Testing of mechanical systems for sterilization department improvements and surgery fan study

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7) *EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT*

Southeast Tower Expansion, Swedish Medical Center Seattle, WA

Commissioning services for mechanical and electrical systems associated with addition of nine patient floors and two-floor penthouse

North Tower Expansion, Highline Community Hospital Burien, WA

Commissioning of existing and newly installed HVAC systems, including 700-ton chilled water plant with primary–secondary–tertiary pumping system. As a result of the commissioning process, the hospital received a \$95,000 rebate from Seattle City Light.

South Puget Sound Community College Building 22 Renovation Olympia, WA

Commissioning (new and retro) of the HVAC and controls systems for the renovation of the majority of the HVAC system in the 76,470 square foot College Center under an energy services contract

State of Oregon Employment Building Salem, OR

Balancing and commissioning for a \$2.7 million interior renovation and energy savings project in 70,000 square feet of office and administrative space

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1) *NAME AND TITLE*

Ron Shoff

Lighting Projects Coordinator

TYPICAL DUTY OR ASSIGNMENT

Directs and performs lighting audit analysis and design

2) *ASSIGNMENT FOR THIS PROJECT*

Consultation on projects where there is either a high degree of difficulty or significant opportunity.

PERCENT OF TYPICAL 40 HOUR WORK WEEK THIS PERSON WOULD SPEND ON PROJECT: 5%

3) *EMPLOYEE OF*

Abacus Engineered Systems, Inc.

4) *YEARS OF EXPERIENCE*

27 TOTAL YEARS OF EXPERIENCE 4 WITH THIS FIRM

5) *EDUCATION: COLLEGE / DEGREE(S) / YEAR / SPECIALIZATION:*

Bismark State College / 1974 / General Studies

6) *ACTIVE REGISTRATION IF APPLICABLE: Year first registered / State / Discipline or Type*

Not applicable

COMMONWEALTH OF VIRGINIA REGISTRATION / LICENSE NUMBER:

Not applicable

7) *EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT*

Mr. Shoff has 27 years' experience in lighting auditing, lighting design, and project and construction management. His expertise includes in-depth lighting energy analysis of diverse building types, from schools to retail spaces. Mr. Shoff's most recent experience includes serving as the project manager of the lighting improvements at Highline School District and the lighting specialist for the Battle Ground School District energy conservation audit.

State of Oregon Employment Building Salem, OR

Lighting Specialist A lighting system renovation throughout five levels of office space. Designed new lighting systems in open and private offices as well as circulation areas.

Central Washington University Ellensburg, WA

Lighting Specialist Lighting improvements include upgrades to T-8 lamps and electronic ballasts in 19 buildings(12 academic buildings and 7 auxiliary buildings)on campus and the retrofit or replacement of existing fluorescent and incandescent luminaries with more energy efficient fixtures.

Hiram G. Andrews Center Johnstown, PA

Lighting Specialist The center contains over 550,000 square feet under one roof. Abacus replaced the existing standard-efficiency lighting with modern energy-efficient T-8 lamps and electronic ballasts. Upon completion, the project will provide energy and utility savings of \$1.24 million per year.

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7) *EXPERIENCE AND / OR QUALIFICATIONS RELEVANT TO THIS CONTRACT*

Kitsap County Port Orchard, WA

Lighting Specialist Abacus completed an energy study of sixteen buildings and identified opportunities for improving efficiency and comfort. Lighting improvements included the retrofit of full size fluorescent luminaries with T8 fluorescent sources and electronic ballasts, conversion of incandescent sources to either T8 fluorescent or compact fluorescent sources using electronic ballasts and the conversion all exit signs to be LED type exit signs.

Battle Ground School District Battle Ground, WA

Lighting Specialist The audit summarizes baseline facility data, energy use/cost data, energy system deficiencies, and energy system improvement opportunities for four elementary schools, three middle schools, two combined elementary and middle schools, two high schools, a vocational building, and an administrative facility.

Clover Park School District Clover Park, WA

Lighting Specialist Assessment of four facilities found many significant opportunities to improve energy efficiency, lighting, indoor air quality, occupant comfort, and equipment operation.

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